

REMARKS

This is in response to the Office Action dated September 26, 2007. Claims 1-22 are pending.

Claim 1 stands rejected under Section 102(b) as being allegedly anticipated by Mosier (US 5,489,918). This section 102(b) rejection is respectfully traversed for at least the following reasons.

The invention of claim 1 relates to a VA-type LCD, whereas Mosier relates to a TN-type LCD (e.g., see Mosier at col. 1, line 28, and Figs. 3-4; and the instant specification from pg. 3, line 15 to pg. 5, line 4). TN and VA type LCDs are much different from one another optically. In a VA type LCD, the liquid crystal molecules are substantially vertically aligned when no voltage is applied or in the OFF state. In contrast, in a TN LCD, the liquid crystal molecules are twisted (e.g., about 90 degrees) when no voltage is applied or in the OFF state. While claim 1 does not state “vertically aligned”, it expressly requires the display “when both of transmittance at the front and transmittance at an oblique angle are 1 in white display, having such display characteristics that transmission intensity at the oblique viewing angle is larger than transmission intensity at the front.” E.g., see pgs. 30-32 and Fig. 8 of the instant specification. This expressly recited feature in claim 1 is a characteristic of VA-type LCDs, but not TN-type LCDs. In other words, claim 1 is limited to VA type LCDs, and does not cover TN type LCDs.

Mosier fails to disclose or suggest the aforesaid quoted subject matter of claim 1, and cannot anticipate the claim. In particular, Moser relates to a TN type LCD, and thus fails to disclose or suggest “when both of transmittance at the front and transmittance at an oblique angle are 1 in white display, having such display characteristics that transmission intensity at the oblique viewing angle is larger than transmission intensity at the front” as recited in claim 1.

Moreover, because TN and VA type LCDs are very different from one another, there would have been no reason to modify Mosier to meet claim 1. Indeed, if Mosier were modified to be a VA type LCD, then Mosier's driving scheme likely would not work properly.

The Examiner on page 9 of the Office Action argues that Mosier states that there are several types of LCDs, and thus the aforesaid requirement of claim 1 is met. This argument lacks merit. Columns 1-2 of Mosier make clear that Moser is referring to segmented type, matrix type, active matrix type, passive type, and color LCDs as the different "types." There is no mention, disclosure or suggestion of a VA type LCD in Mosier. Because there is no mention of VA type LCDs in Mosier, the reference cannot possibly relate to solving the problem solved by applicant which is particular to VA-type LCDs. Moser is unrelated to claim 1 in these respects.

Claims 14-15 also recite "when both of transmittance at the front and transmittance at an oblique angle are 1 in white display, having such display characteristics that transmission intensity at the oblique viewing angle is larger than transmission intensity at the front." As explained above, Mosier fails to disclose or suggest this subject matter.

For purposes of example and without limitation, certain example embodiments of this invention utilize LC operating in a vertically aligned mode which has wider viewing angle characteristics than LC operating in the twisted nematic (TN) mode. The aforesaid language recites a feature of a vertically aligned mode type LCD. This realizes switching between viewing characteristics on a display screen by changing contrast and grey scale expressing capability of a LC panel, taking advantage of excess brightness on the lower end of the grey scale (on the side of black display) at the oblique viewing angle(s) and grey scale degradation (in a severe case, grey scale inversion) on the higher end of grey scale (on the side of white display) at the oblique viewing angle(s), which are demerits of LC operating in the VA mode. That is,

KUBO, M.
Appl. No. 10/811,306

certain example embodiments of this invention use an LC panel having unique display characteristics, which control the range of viewing angle characteristics by taking advantage of such display characteristics of the panel.

For at least the above reasons, it is respectfully requested that the rejections be withdrawn. All claims are in condition for allowance. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

Respectfully submitted,

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